REMARKS

Upon entry of the claim amendments, Claims 1-3, 5-10, and 12-14, and 16 will be all the claims pending in the application.

Amended Claim 1 is supported by the description at, for example, page 5, lines 24-34, of the specification.

Claims 9 and 10 have been rewritten to render them consistent with amended Claim 1.

New Claim 16 is supported by the description at, for example, page 6, lines 5-9, of the specification. In addition, one of ordinary skill in the art would immediately understand from the present specification that the thickness recited in Claim 16 is the thickness of the applied AlN, and not the thickness of the combination of the AlN layer and its support.

For example, the second paragraph of the specification describes that, in the prior art, AlN substrates are commercially available with a minimum thickness of 0.635 mm for reason of mechanical strength. In other words, if the AlN substrate thickness is less than 0.635 mm, the mechanical strength is no longer sufficient to support power electronic components.

The method of Claim 16 teaches how to fabricate an AlN substrate, the thickness of which ranges from 0.1 mm to 0.5 mm. However, as described at the second paragraph of the specification, the AlN substrate thickness range recited in Claim 16 may be insufficient on its own to mechanically support power electronic components because it is smaller than 0.635 mm. Thus, it may be necessary to strengthen this layer, for example, with a support. This is exactly what the present specification teaches. In fact, the specification describes that the AlN is sprayed onto a support. Thus, the 0.1-0.5 mm range recited in Claim 16 refers to the applied AlN layer thickness.

Considering the alternative also establishes that the 0.1-0.5 mm range recited in Claim 16 refers to the applied AlN layer thickness. If the thickness range of 0.1-0.5 mm referred to the combination of the AlN layer and the support, it would mean that the power electronic components would be supported only by something less than 0.5 mm thick. This is insufficient

to support power electronic components, as described at the second paragraph of the specification. Accordingly, only the interpretation wherein the 0.1-0.5 mm range recited in Claim 16 refers to the applied AlN layer thickness is plausible.

No new matter has been added.

I. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 4 at pages 3-6 of the final Office Action, Claims 1-3, 5-8, 10, and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,460,529 ("Schultze") in view of U.S. Patent No. 5,273,699 ("Knudsen") and the admitted state of the prior art.

Applicants respectfully traverse.

The method of Claim 1 comprises, *inter alia*, providing a metal support, providing an attachment sublayer on the metal support, and spraying the powder obtained after atomization onto the attachment sublayer of the metal support. A benefit of providing an attachment sublayer on the metal support is that it encourage adhesion of the AlN deposit during thermal cycling. For example, the attachment sublayer may avoid accidental detachment of the AlN layer after spraying due to a difference of dilation coefficients between the AlN layer and the support.

The combination of Schultze in view of Knudsen and the admitted state of the art does not teach or suggest providing an attachment sublayer on a metal support. Indeed, Schultze teaches how to separate the sprayed AlN layer from the support on which it is sprayed.

For at least the above reasons, reconsideration and withdrawal of the present §103 rejection is requested.

In addition, Applicants would like to separately argue the patentability of dependent Claim 16.

Claim 16 recites that the fabricated AlN substrate has a thickness of from 0.1 mm to 0.5 mm. The method of Claim 16 fabricates a substrate for use as a support for electronic components.

Schultze, on the other hand, is concerned with hollow bodies such as thick-walled pipes. The combination of Schultze in view of Knudsen and the admitted state of the prior art does not teach or suggest the method of Claim 16.

II. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 5 at pages 6 and 7 of the final Office Action, Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Schultze in view of Knudsen and the admitted state of the prior art and further in view of U.S. Patent No. 5,045,365 ("Okano").

Applicants respectfully traverse.

Claim 9 depends from Claim 1. Accordingly, Claim 9 is patentable over the combination of Schultze in view of Knudsen and the admitted state of the prior art, for at least the reasons mentioned above with respect to Claim 1.

Further, Okano does not cure the deficiencies of the combination of Schultze in view of Knudsen and the admitted state of the prior art. Okano does not teach or suggest providing an attachment sublayer on a metal support.

Reconsideration and withdrawal of the present §103 rejection is requested.

III. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 6 at pages 7 and 8 of the final Office Action, Claims 12-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schultze in view of Knudsen and the admitted state of the prior art and further in view of U.S. Patent No. 3,617,358 ("Dittrich").

Applicants respectfully traverse.

Each of Claims 12-14 depends from Claim 1. Accordingly, Claims 12-14 are patentable over the combination of Schultze in view of Knudsen and the admitted state of the prior art, for at least the reasons mentioned above with respect to Claim 1.

Further, Dittrich does not cure the deficiencies of the combination of Schultze in view of Knudsen and the admitted state of the prior art. Dittrich does not teach or suggest providing an attachment sublayer on a metal support.

Reconsideration and withdrawal of the present §103 rejection is requested.

IV. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 7 at pages 8-11 of the final Office Action, Claims 1-3, 5-8, 10, and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,276,423 ("Breit") in view of Knudsen.

Applicants respectfully traverse.

The method of Claim 1 comprises, *inter alia*, providing a metal support, providing an attachment sublayer on the metal support, and spraying the powder obtained after atomization onto the attachment sublayer of the metal support. A benefit of providing an attachment sublayer on the metal support is that it encourage adhesion of the AlN deposit during thermal cycling. For example, the attachment sublayer may avoid accidental detachment of the AlN layer after spraying due to a difference of dilation coefficients between the AlN layer and the support.

The combination of Breit in view of Knudsen does not teach or suggest providing an attachment sublayer on a metal support.

For at least the above reasons, reconsideration and withdrawal of the present §103 rejection is requested.

In addition, Applicants would like to separately argue the patentability of dependent Claim 16.

Claim 16 recites that the fabricated AlN substrate has a thickness of from 0.1 mm to 0.5 mm. The method of Claim 16 fabricates a substrate for use as a support for electronic components.

The combination of Breit in view of Knudsen does not teach or suggest the method of Claim 16.

V. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 8 at pages 11-12 of the final Office Action, Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Breit in view of Knudsen and further in view of Okano.

Applicants respectfully traverse.

Claim 9 depends from Claim 1. Accordingly, Claim 9 is patentable over the combination of Breit in view of Knudsen, for at least the reasons mentioned above with respect to Claim 1.

Further, Okano does not cure the deficiencies of the combination of Breit in view of Knudsen. Okano does not teach or suggest providing an attachment sublayer on a metal support.

Reconsideration and withdrawal of the present §103 rejection is requested.

VI. RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Referring to Section No. 9 at pages 12-13 of the final Office Action, Claims 12-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Breit in view of Knudsen and further in view of Dittrich.

Applicants respectfully traverse.

Each of Claims 12-14 depends from Claim 1. Accordingly, Claims 12-14 are patentable over the combination of Breit in view of Knudsen, for at least the reasons mentioned above with respect to Claim 1.

Further, Dittrich does not cure the deficiencies of the combination of Breit in view of Knudsen. Dittrich does not teach or suggest providing an attachment sublayer on a metal support.

Reconsideration and withdrawal of the present §103 rejection is requested.

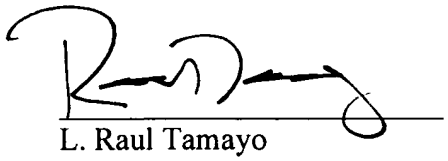
VII. CONCLUSION

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be

best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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